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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,839	12/27/2001	Christopher L. Hamlin	01-827	9625

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EXAMINER

THOMPSON, ANNETTE M

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 08/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,839

Applicant(s)

HAMLIN, CHRISTOPHER L.

Examiner

A. M. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001 - 27 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,8-10,13,15-17 and 20 is/are rejected.
- 7) ☒ Claim(s) 2,3,5,7,11,12,14,18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This application, 10/034,839, has been examined. Claims 1-20 are pending.

Specification

1. The disclosure is objected to because of the following informalities: In the specification at paragraph [0001], reformat this section as necessary, deleting the express mail numbers, and inserting application numbers and status of application (e.g. now U.S. Patent. . .), if applicable. At page 11, paragraph [0041], delete Express Mail Number, and insert patent application number in lieu thereof, and status, if applicable.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Rejection of claims 1, 4, 6, 8-10, and 15-17

3. Claims 1, 4, 6, 8-10, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Hemmi et al. (Hemmi), US. Patent 5,615,124. Hemmi discloses an autonomous evolution type hardware design system.

4. Pursuant to claim 1 which recites a system suitable for providing integrated circuit design (Fig. 1; col. 3, ll. 10-14), comprising a memory (col. 3, ll. 43-48) storing a

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first set of instructions and a second set of instructions; and a processor (col. 3, ll. 48-50; see also col. 3, ll. 58-63, the hardware specification interpretation unit) communicatively coupled to the memory, the processor suitable for performing the first set of instructions and the second set of instructions, wherein the first set of instructions is suitable for configuring a processor to provide an integrated circuit development environment in which a support methodology for an integrated circuit is created and the second set of instructions is suitable for configuring a processor to provide tools for implementing a platform architecture of an integrated circuit in which the platform architecture supplies a structure of the integrated circuit (col. 4, ll. 8-46), the first set of instructions and the second set of instructions linked through at least one formalism so that at least one of an action taken utilizing the platform architecture influences the support methodology and an action taken utilizing the support methodology influences the platform architecture (col. 2, ll. 40-50).

5. Pursuant to claim 4, wherein the formalism includes a genetic algorithm (col. 3, ll. 37-39; col. 6, ll. 21-47).

6. Pursuant to claim 6, wherein the formalism is utilized to implement coevolutionary relationship (col. 2, ll. 3-21).

7. Pursuant to claim 8, which recites a method of designing an integrated circuit(col. 2, ll. 3-9) comprising receiving functional specifications and constraints of an integrated circuit (col. 3, ll. 10-16); and interacting with a system configured to provide an environment for deriving a support methodology for an integrated circuit having the received functional specifications, wherein the interaction with the support methodology

for the integrated circuit influences an environment for designing a platform architecture for an integrated circuit (col. 4, ll. 8-25).

8. Pursuant to claim 9, wherein interacting includes manipulation by a user of a graphical user interface as implemented on an information handling system (col. 1, ll. 21-31; the IO unit, col. 3, line 50 to col. 4, line 2).

9. Pursuant to claim 10 wherein the environment for designing a platform architecture is provided by an information handling system (the IO unit, col. 3, line 50 to col. 4, line 2) including a display of user-manipulable information.

10. Pursuant to claim 15, which recites a method of designing an integrated circuit(col. 2, ll. 3-9) comprising receiving functional specifications and constraints of an integrated circuit (col. 3, ll. 10-16); and interacting with a system configured to provide an environment for deriving a platform architecture for an integrated circuit having the received functional specifications, wherein the interaction with the support methodology for the integrated circuit influences an environment for designing a support methodology for an integrated circuit (col. 4, ll. 8-25).

11. Pursuant to claim 16, wherein interacting includes manipulation by a user of a graphical user interface as implemented on an information handling system (col. 1, ll. 21-31; the IO unit, col. 3, line 50 to col. 4, line 2).

12. Pursuant to claim 17 wherein the environment for designing a support methodology is provided by an information handling system (the IO unit, col. 3, line 50 to col. 4, line 2) including a display of user-manipulable information.

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Rejection of claims 8, 13, 15, and 20

14. Claims 8, 13, 15, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by the Xin Yao paper (the Yao paper) entitled Following the Path of Evolvable Hardware.

15. Pursuant to claims 8 and 15 the Yao paper discloses a method of designing an integrated circuit (Figure 1) comprising receiving functional specifications and constraints (Figure 1, top box), and interacting with a system configure to provide an environment for deriving a platform architecture or support methodology for an integrated circuit having the received functional specifications wherein the interaction with the platform architecture or support methodology influence a design environment (see Figure 1 wherein the arrows are illustrative of interaction and influence).

16. Pursuant to claims 13 and 20, wherein the environment is influenced through the use of a formalism wherein the formalism is utilized to implement a coevolutionary relationship (Figure 1 illustrate the coevolutionary relationship).

Allowable Subject Matter

17. Claims 2, 3, 5, 7, 11, 12, 14, 18, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: In a system and method for coevolutionary circuit design, the prior art does not teach the use of a formalism that includes a differential game or the use of a formalism that is a zero sum differential game that may include a game of pursuit. Further the prior art does not teach the use of a genetic algorithm that guides the training of a neural network.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please reference the PTO-892 for a complete listing.

20. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to A.M. Thompson whose telephone number is (703) 305-7441. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 5:00 p.m.. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew S. Smith, can be reached on (703) 308-1323.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956 or the Customer Service Center whose telephone number is (703) 306-3329.

21. Responses to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for all **OFFICIAL** communications intended for entry)

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Hand-delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).



A. M. THOMPSON
Master's Level Patent Examiner